

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for rapidly isolating genomic DNA nucleic acid from a nucleic acid source comprising the steps of:
 - a) lysing the nucleic acid source,
 - b) filtering the lysate through a porous matrix consisting of a material based on silica or of a silica coated material to bind the nucleic acid to the porous matrix in the absence of an alcohol and in the absence of a chaotropic salt, and
 - c) eluting the nucleic acid from the porous matrix of step b) by using an aqueous buffer solution to provide the isolated genomic DNA.
2. (Canceled).
3. (Canceled).
4. (Currently Amended) [[A]] The method according to claim 1, wherein the nucleic acid genomic DNA is of a size ranging from about 10 kbp to about 50 kbp.
5. (Currently Amended) [[A]] The method according to claim 1, wherein the nucleic acid source is any sort of biological tissue or cell material.
6. (Currently Amended) [[A]] The method according to claim 5, wherein the nucleic acid source is at least one selected from the group consisting of:
mammalian cells, organs, biopsies biopsy material, blood, serum, muscle, bone marrow, bacteria, yeast, and/or any sort of plant tissue [[or]] and cells, like seeds or leaves.
7. (Currently Amended) [[A]] The method according to claim 1, wherein the nucleic acid source is lysed using a buffer not containing a chaotropic salt and not containing an alcohol.

8. (Currently Amended) [[A]] The method according to claim 1, wherein at least one selected from the group consisting of a RNase, and/or a protease and/or a lysozyme is added to one or more of the steps of claim 1.

9. (Currently Amended) [[A]] The method according to claim 1, wherein the porous matrix comprises a siliceous oxide coated surface.

10. (Currently Amended) [[A]] The method according to claim 1, wherein the porous matrix is a porous silica membrane.

11. (Currently Amended) [[A]] The method according to claim 1, wherein the porous matrix comprises pores having [[the]] a size ranging from 0.2 μm to 3.2 μm 0.2 μm to 3.2 μm .

12. (Currently Amended) [[A]] The method according to claim 11, wherein the porous matrix comprises pores having [[the]] a size ranging from 0.3 μm to 2.8 μm 0.3 μm to 2.8 μm .

13. (Currently Amended) [[A]] The method according to claim 12, wherein the porous matrix comprises pores having [[the]] a size ranging from 0.5 μm to 2.0 μm 0.5 μm to 2.0 μm .

14. (Currently Amended) [[A]] The method according to claim 1, further comprising a step wherein the isolated nucleic acid genomic DNA serves as a template in a subsequent application like AFLP, RFLP, microsatellite analysis, southern blot, PCR or quantitative real time PCR.

15. (Currently Amended) [[A]] The method according to claim 14, wherein the subsequent application is PCR or quantitative real time PCR isolated nucleic acid serves as a template in [[a]] subsequent PCR or subsequent quantitative real time PCR application.

16. (Currently Amended) [[A]] The method according to claim 1, wherein the lysate of step a) of claim 1 is centrifuged to eliminate cell debris from the lysate prior to step b) of claim 1.

17. (Currently Amended) [[A]] The method according to claim 1, wherein one or more washing steps are performed subsequent to step b) of claim 1 and prior to step c) of claim 4.

18. (Currently Amended) [[A]] The method according to claim 17, wherein the one or more washing step is performed using a washing buffer.

19. (Currently Amended) [[A]] The method according to claim 1, wherein the porous matrix of step b) of claim 1 is a membrane embedded in a single column filter tube.

20. (Currently Amended) [[A]] The method according to claim 1, wherein the porous matrix of step b) of claim 1 is a membrane integrated in a multi-well filter plate.

21. (Currently Amended) [[A]] The method according to claim 19, wherein the membrane is assembled in one or more layers.

22. (Currently Amended) [[A]] The method according to claim 21, wherein the membrane comprises multiple membrane layers and each of the layers of the membrane have pores of different sizes relative to the other layers the pore size of one layer differs from the pore size of the other layer(s).

23. (Canceled).